AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-13 (cancelled).

14. (Currently Amended) A laser active optronic system, comprising:

[[a]] an emission channel for the emission by an emission source of a laser beam illuminating a target, [[and]]

a receiving channel for receiving [[the]] a backscattering wave backscattered by the target, and

~~wherein an optical~~ a switching device [[is]] positioned in the ~~receive~~ receiving channel, wherein said switching device is an optical switching device controlled by a control unit ~~said optical switching device receiving said backscattered wave~~, said control unit activating the switching device into an ON mode at a predetermined instant after the start of emission of the illuminating laser beam, so that the backscattering wave passes through at least one temporal window for a predetermined duration, and wherein the switching device is in an OFF mode at least until said predetermined instant, so as to suppress part of a parasitic light flux incident in the reception channel and

wherein the optical device ~~and comprising~~ comprises an optical gain medium and pumping means for pumping said gain medium, said optical gain medium being absorbent at the wavelength of the laser when not pumped, and the switching device is in the OFF mode, and becoming substantially transparent when [[it]] the laser is pumped, and the switching device is in the ON mode ~~in such a way as to allow the switching device to be actuated in the on mode or off mode respectively, in that it further includes a control unit for controlling the pumping means, allowing the switching device to be actuated in the on mode in at least one temporal window of predetermined duration, triggered at a predetermined instant after the start of emission of the illuminating laser beam~~.

15. (Currently Amended) The optronic system as claimed in claim 14, wherein the ~~gain medium, when it is pumped,~~pumping rate is adjusted to amplify ~~furthermore generates a backscattered wave amplification effect~~ the backscattered wave.

16. (Currently Amended) The optronic system as claimed in claim 14, wherein the pumping means [[are]] comprises an optical pumping means comprising a source for emitting a pump beam ~~intended~~ for pumping the gain medium.

17. (Currently Amended) The optronic system as claimed in claim 16, wherein the source for emitting the pump beam means is extracted from the source for emitting the target-illuminating beam, and the ON mode of the optical switching device is such that amplification of the backscattered wave is absent.

18. (Original) The optronic system as claimed in claim 14, wherein the optical switching device is positioned near an intermediate focal plane.

19. (Currently Amended) An active imaging optronic system as claimed in claim [[17]] 16, wherein the gain medium is formed from a uniform block and ~~in that~~wherein ~~the pumping means are~~ said optical pumping means ~~comprising a source for emitting a pump beam and~~further comprises a spatial light modulator to which said pump beam is sent, ~~making it possible~~ to selectively actuate ~~for the~~ various regions of the gain medium, which regions are distributed over the entire block in a two-dimensional matrix~~, to be selectively actuated~~.

20. (Currently Amended) The active imaging optronic system as claimed in claim 18, wherein the gain medium is arranged ~~in the form of~~ as a matrix of optical-gain elements, enabling selective actuation of ~~it being possible for~~ said elements ~~to be pumped selectively~~ by said pumping means.

21. (Previously presented) The optronic system as claimed in claim 14, wherein the gain medium is a semiconductor material.

22. (Previously presented) The optronic system as claimed in claim 21, wherein the gain medium is a semiconductor material pumped by optical pumping means.

23. (Previously presented) The optronic system as claimed in claim 21, wherein the gain medium is a semiconductor material pumped by electrical pumping means.

24. (Previously presented) The optronic system as claimed in claim 21, in which said semiconductor material is of the GaInAsP type, the composition of which is adapted according to the wavelength of the emission laser beam.

25. (Cancelled)

26. (Currently Amended) The optronic system as claimed in ~~claim 24~~ claim 14, wherein the gain medium is a transparent material which contains ~~contains~~ erbium ions, and which forms a three state level material which assumes a state of maximum absorption while not pumped, and wherein the pumping means ~~are optical pumping and operates~~ optically pumps at a wavelength of 0.98 or 1.48 microns.

27. (Previously presented) The optronic system as claimed in claim 14, wherein the control unit is programmed to actuate the switching device in on mode according to several temporal windows corresponding to different distance doors for analyzing a scene in three dimensions.

28. (New) The optronic system as claimed in claim 26, wherein the control unit is programmed to actuate the switching device in ON mode according to several temporal windows corresponding to different distance doors for analyzing a scene in three dimensions.

29. (New) A laser active optronic system, comprising:

an emission channel for the emission by an emission source of a laser beam illuminating a target;

a receiving channel for receiving a backscattering wave backscattered by the target;

an optical switching device positioned in the receiving channel and controlled by a

control unit so as to have an ON mode and OFF mode, the optical switching device comprising

an optical gain medium and an optical pump,

said optical gain medium comprising a doped transparent material, that forms a three state level material which assumes a state of maximum absorption while not pumped, the optical gain medium being absorbent at the wavelength of the laser when the switching device is in the OFF mode and the optical gain material is not optically pumped, and substantially transparent when the switching device is in the ON mode and the optical gain material is pumped by the optical pump, and wherein:

the control unit is configured to:

activate the switching device into the ON mode at a predetermined instant after the start of emission of the illuminating laser beam, so that the backscattering wave passes through at least one temporal window for a predetermined duration, and

maintain the OFF mode at least until said predetermined instant, so as to suppress part of a parasitic light flux incident in the reception channel.

30. (New) The optronic system as claimed in claim 29, wherein the optical pump optically pumps at a wavelength of 0.98 or 1.48 microns.

31. (New) The optronic system as claimed in claim 29, wherein the optical gain material is doped with erbium ions.